

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figures 5 and 11. These sheets replace the original sheets. Figures 5 and 11 have been amended to conform more clearly with their corresponding detailed descriptions.

Attachment: Replacement Drawing Sheets
Annotated Drawing Sheets Showing Changes

REMARKS

Claims 1-34 are pending in the application.

Claims 1-34 have been rejected.

Claims 3, 19-23, 26 and 31 have been amended.

Claims 1, 2, 27-30 and 32-34 have been cancelled. Applicants therefore respectfully submit that rejections made to these claims are rendered moot. By the cancellation of these claims, Applicants do not concede that the cited art discloses any invention presented in those claims, but instead these claims are being cancelled to clarify the issues for prosecution and to expedite prosecution. Applicants reserve the right to present these claims at a later date, for example in a continuing application.

Objections to Claims

The Office Action objects to Claims 1, 3, 19 and 21 due to an informality in which a semicolon was present where a colon was appropriate. Applicants have amended the indicates claims, as requested.

The Office Action also objects to Claim 31 because of a typographical informality in the claim limitation “submitting the a native relational database query.” Applicants have amended this limitation of Claim 31 to read “submitting the native relational database query.”

Applicants believe that the above claim amendments are responsive to the stated objections in the Office Action.

Rejection of Claims Under 35 U.S.C. §112

Claim 31 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants respectfully traverse this rejection.

The Office Action rejects Claim 31 under 35 U.S.C. §112 because of the limitation element “submitting the a relational database query.” As stated above, this limitation of Claim 31 has been amended to read “submitting the native relational database query.” Applicants respectfully submit that this amendment to Claim 31 is responsive to the rejection of this claim under 35 U.S.C. §112. Applicants therefore respectfully request the Examiner’s reconsideration and withdrawal of this rejection to Claim 31, and an indication of the allowability of same.

Rejection of Claims Under 35 U.S.C. §102

Claims 1-3, 6-7, 8, 10, 15, 17-18 and 19-30 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication 2004/0236767 naming Soylemez et al. (“Soylemez”) as inventors. Applicants respectfully traverse this rejection.

Claim 3: Independent Claim 3, as amended, contains the following claim limitations:

- receiving the relational database query, the received relational database query being drawn against a relational model of a multidimensional data source, wherein the relational model comprises a relational-to-multidimensional mapping between a virtual relational table and the multidimensional data source;
- using the relational-to-multidimensional mapping together with relational/multidimensional equivalency logic to construct a multidimensional database query based on the received relational

database query, wherein the relational/multi-dimensional equivalency logic comprises a general mapping between relational queries and structures and multidimensional queries and structures; and

- submitting the constructed multidimensional database query for execution against the modeled multidimensional data source.

See Claim 3 (as amended). Applicants respectfully submit that Soylemez does not disclose one or more of the amended claims of Claim 3.

Applicants submit that Soylemez discloses creating a relational structure which is populated by extracted data from the multidimensional data source. *See* Soylemez, ¶¶[0018], [0020], [0045]. Soylemez discloses that this extracted data is manipulated by relational queries. *See* Soylemez, ¶[0020]. Thus, the cited sections of Soylemez do not disclose mapping a relational query to a multidimensional query to satisfy a received relational database query, but instead satisfy a relational database query by exercising the query against data that has been extracted from the multidimensional database.

For at least these reasons, Applicants respectfully submit that Claim 3, as amended, and all claims depending therefrom are in condition for allowance. Applicants further submit that independent Claim 19 and 21, as amended, contain substantially the same limitations as amended Claim 3, and therefore Applicants respectfully submit that independent Claims 19 and 21, as amended, and all claims depending therefrom are in condition for allowance, as well. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections as to Claims 3-22 and an indication of the allowability of same.

Claims 23 and 26: Independent Claims 23, as amended, contains the following claim limitation:

One or more mappings between schema components and contents of the multidimensional data source to which they correspond, wherein ...

the schemas and mappings are configured to be used to translate relational queries against the virtual relational tables into multidimensional queries against the multidimensional data source and to translate multidimensional query results from the multidimensional data source into relational query results from the virtual relational tables.

See Claim 23 (as amended). Claim 26, as amended contains the following limitation:

a single body of relational/multidimensional equivalency logic that is configured to be used to translate a relational query against one or more of the virtual relational tables defined by the individual source information for selected multidimensional data sources into a multidimensional query against the selected multidimensional data sources with reference to the individual source information for the selected multidimensional data sources.

See Claim 26 (as amended). Applicants respectfully submit that the cited sections of Soylemez do not provide disclosure of either translating relational queries against the virtual relational tables into multidimensional queries against the multidimensional data source or translating multidimensional query results from the multidimensional data source into relational query results from the virtual relational tables.

As purported disclosure of the above claim limitations, the Office Action cites to the following passage of Soylemez:

According to one aspect of the invention, the multidimensional database server places the extracted multidimensional data in a relational structure, referred to herein as the “virtual return table”, to enable the relational database server to access and manipulate the data as if the data resided in a relational table. In one embodiment, information about how to structure a virtual table associated with results from a table function is included in the relational database statement, and communicated from the relational database server to the multidimensional database server. In addition, the multidimensional database server may dynamically generate definitions of the types within the virtual return table, and communicate the definitions to the relational database server to enable the relational database server to access the multidimensional data within the virtual return table.

Soylemez, ¶[0020]. Applicants respectfully submit that nowhere within the above-quoted passage cited by the Office Action is there disclosure of the claimed translations between the relational queries to multidimensional queries and vice versa. In fact, the cited

section discloses that data is actually extracted from the multidimensional database and placed in a relational structure, which is then manipulated by the relational database server. Thus, there is no need for the claimed translation processes of Claims 23 and 26.

For at least these reasons, Applicants respectfully submit that independent Claims 23 and 26 and all claims depending therefrom are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections as to these claims, and an indication of the allowability of same.

Rejection of Claims Under 35 U.S.C. §103

Independent Claim 31 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Soylemez in view of U.S. Patent Application Publication 2002/0087516 naming Cras et al. as inventors ("Cras"). Applicants respectfully traverse this rejection.

In order for a claim to be rendered invalid under 35 U.S.C. §103, the subject matter of the claim as a whole would have to be obvious to a person of ordinary skill in the art at the time the invention was made. *See* 35 U.S.C. §103(a). This requires: (1) the reference(s) must teach or suggest all of the claim limitations; (2) there must be some teaching, suggestion or motivation to combine references either in the references themselves or in the knowledge of the art; and (3) there must be a reasonable expectation of success. *See* MPEP 2143; MPEP 2143.03; *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

Claim 31 contains claim limitations referring to a "received relational database query being drawn against both a relational model of a multidimensional data source and a native relational table." Claim 31 further contains claim limitations directed to

converting the relational database query into both a native relational database query against the native relational table and a multidimensional database query against a multidimensional data source. Applicants respectfully submit that the cited sections of Soylemez provide no disclosure of native relational table claim elements and converting a relational database query into both a native relational database query and a multidimensional database query.

The Office Action cites to Soylemez, ¶[0018] as purported disclosure of the “receiving the relational database query” claim limitation. Applicants submit that nowhere within the cited section is there disclosure of the relational database query being drawn against “both a relational model of a multidimensional data source and a native relational table.” The cited section relates only to “techniques...for efficiently accessing multidimensional data using relational database statements, such as SQL commands,” not a combination of multidimensional data and native relational data, as claimed.

Similarly, the section of Soylemez purportedly disclosing the “converting” claim limitation does not provide for generating both a native relational database query and a multidimensional database query. *See* Soylemez, ¶[0020]. Applicants respectfully submit that cited section relates only to extracting multidimensional data from the multidimensional data source and permitting the relational database server to access and manipulate that extracted data. *See id.*

Cras is not cited for the proposition of supplying these missing claim limitations from Soylemez, and in fact, the cited sections of Cras do not provide such disclosure. For at least these reasons, Applicants respectfully submit that neither Soylemez nor Cras, alone or in combination, provide disclosure of all of the limitations of Claim 31. The burden is on the Examiner to support a case of obviousness, including whether a prior art references teach or suggest all of the claim limitations. *See* MPEP 706.02(j).

In addition, Applicants also respectfully submit that the Office Action has not satisfied the burden of factually supporting the alleged motivation to combine the two references. This duty may not be satisfied by engaging in impermissible hindsight; any conclusion of obviousness must be reached on the basis of facts gleaned from the references. The Examiner must therefore provide evidence to suggest the combination and “[b]road conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” *See In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Further, the Office Action does not establish that such a combination of the teachings of these references would meet with success, as required.

The Office Action cites Cras as providing disclosure of the following limitation of Claim 31:

combining contents of a first search result produced in response to the native relational database query and a second search result produced in response to the multidimensional database query into a third result responsive to the received relational database query.

Claim 31 (emphasis added). Applicants respectfully submit that the cited section of Cras does not provide disclosure of this claim limitation. The cited section of Cras provides, in pertinent part, the following: “a relational database management system (RDBMS) having any arbitrary structure is translated into a multi-dimensional data model suitable for performing OLAP operations upon.” *See Cras*, ¶[0019] (emphasis added). Thus, the cited section of Cras relates to translating a relational database structure into a multidimensional data structure, rather than the claimed combining the contents of a search result in response to a native relational database query and a multidimensional database query into a response to a relational database query, which would not itself be multi-dimensional by definition. Thus, a person of ordinary skill in the art would not be

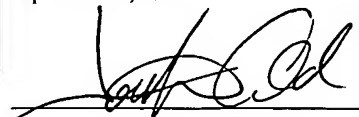
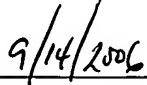
motivated to combine Soylemez with Cras to achieve the invention presented by Claim 31.

Further, Applicants respectfully submit that for the reasons presented above, one would not expect that a combination of the cited sections of Soylemez with the cited sections of Cras to successfully result in an implementation of the claimed invention in Claim 31. This is due to the fact that Cras does not provide disclosure of the "combining" claim limitation of Claim 31.

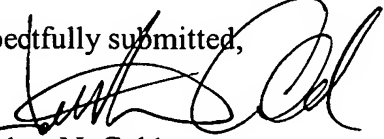
For these reasons, Applicants respectfully submit that the Office Action fails to present a *prima facie* case of obviousness of independent Claim 31 and that it is in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections as to this claim, and an indication of the allowability of same.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, COMMISSIONER FOR PATENTS, P. O. Box 1450, Alexandria, VA 22313-1450, on September 14, 2006.	
 Attorney for Applicant(s)	 Date of Signature

Respectfully submitted,


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A circular stamp from the Office of Intellectual Property (OIPE). The text "OIPE" is at the top, "IAP25" is at the top right. The date "SEP 18 2006" is in the center. The words "PATENT & TRADEMARK OFFICE" are at the bottom. A handwritten number "527" is at the bottom right.



ANNOTATED SHEET SHOWING CHANGES

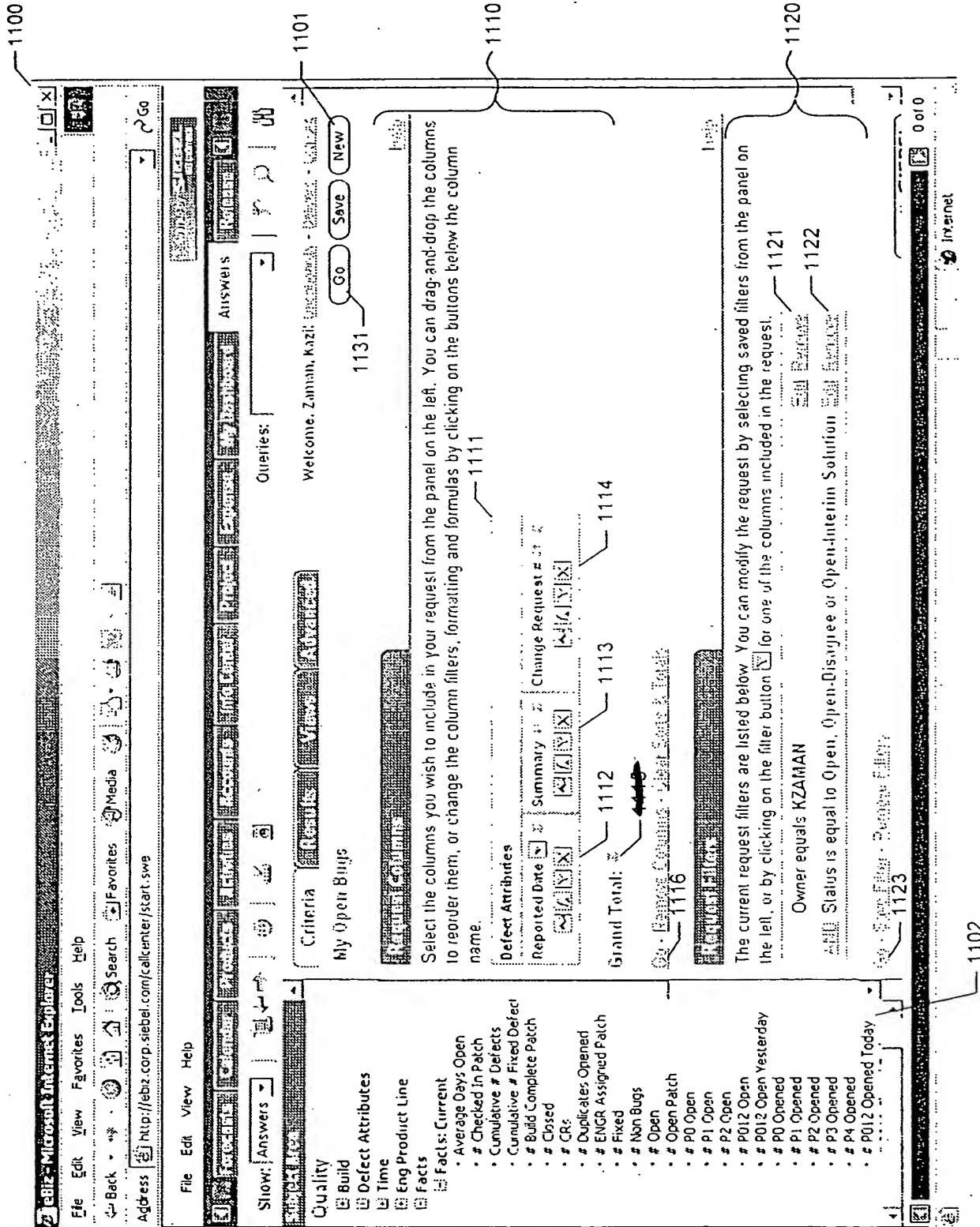


FIG. 11